UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,593	06/06/2005	Liang Gan	NL021309	6759

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EXAMINER
MENDOZA, JUNIOR O

ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/537,593	GAN ET AL.
Office Action Summary	Examiner	Art Unit	
	JUNIOR O. MENDOZA	2623	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>10 November 2003</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-16</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-16</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>06 June 2005</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>06/06/2005</u>.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Drawings

1.   The drawings are objected to because Figure 2 includes an application (34)

element, which is referred as application processor (34) as disclosed on paragraph

[0015], the examiner suggests that "application" (34) be change to "application

processor" (34) for clarity purposes.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   **Claims 1, 2, 6, 7, 8, 11, 12, 13, 14 and 15** are rejected under 35 U.S.C. 103(a)

as being unpatentable over Kanungo et al. (Patent No US 5,870,084) in view of Adler et

al. (Patent No US 7,155,672). Hereinafter referenced as Kanungo and Adler,

respectively.

Regarding **claim 1**, Kanungo discloses an interactive television system

comprising: a broadcast center (10) including a source of video signals, a source of

application programs, and a source of font files (Broadcast center [12] provides a video

and audio stream, applications and resource files such as glyphs, col. 9 lines 6-20 also

exhibited on fig 1 and 3)

and a transmitter (12) which acts to transmit the video signals, application

programs and partial font files (The broadcast center [12] transmits a stream of digital

data to a set top box [18], col. 7 lines 13-17 also exhibited on fig 1);

and an interactive television receiver responsive to the transmitted video signals application programs, and partial font files which displays text produced in response to the partial font files (Set top box [18] receives the transmitted content, col. 7 lines 13-25 also exhibited on fig 1).

It is noted that Kanungo fails to explicitly disclose that the font files comprises a partial font file containing the fonts applicable to a given application which is less than the full font file of a given language. However, Adler discloses that the font files comprises a partial font file containing the fonts applicable to a given application which is less than the full font file of a given language (Sub-set character files are created which includes only the characters needed to display an application, col.3 lines 57-67 col. 4 lines 1-9 and col. 9 lines 4-16)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanungo by specifically providing the elements mentioned above, as taught by Adler, for the purpose of saving space at the receiver side since there would not be a need to transmit an entire character library but only the characters needed to be displayed which is only a fraction in size compared to a given full character library.

Regarding **claim 2**, Kanungo and Adler disclose the interactive television system of claim 1; moreover, Adler discloses that the source of font files comprises a partial font generator (38) (A glyph sub-set is created including only the characters that apply to the electronic content, col. 11 lines 39-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Kanungo by specifically providing the elements

mentioned above, as taught by Adler, for the purpose of saving space at the receiver

side since there would not be a need to transmit an entire character library but only the

characters needed to be displayed which is only a fraction in size compared to a given

full character library.

Regarding **claim 6**, Kanungo discloses a method for generating a character font

file for an application of an interactive television system comprising:

analyzing an interactive television application to determine if a particular font is

used in the application (An application developer develops an application which

references to the textual information to be implemented on the application, col. 9 lines

40-48 also exhibited on fig 3 and 4);

It is noted that Kanungo fails to explicitly disclose that if the particular font is used

in the application, adding the font to a partial font file; if the particular font is not used in

the application, not adding the font to a partial font file and repeating the previous steps

until the text of the application has been fully analyzed.

However, Adler discloses that if the particular font is used in the application,

adding the font to a partial font file; if the particular font is not used in the application, not

adding the font to a partial font file and repeating the previous steps until the text of the

application has been fully analyzed (Only the characters needed to display the electronic content will be added to the glyph sub-set until all the characters needed for the electronic content are included on the glyph sub-set, col. 3 lines 51-58 col. 9 lines 4-16);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanungo by specifically providing the elements mentioned above, as taught by Adler, for the purpose of saving space at the receiver side since there would not be a need to transmit an entire character library but only the characters needed to be displayed which is only a fraction in size compared to a given full character library.

Regarding **claim 7**, Kanungo and Adler disclose the interactive television system of claim 6; moreover, Adler discloses storing the partial font file after the application has been completely analyzed (Database [20] stores sets of fonts or other information that can be sent to the electronic device receiver [12], col. 4 lines 64-67 col. 12 lines 20-23 also exhibited on fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanungo by specifically providing the elements mentioned above, as taught by Adler, for the purpose of saving space at the receiver side since there would not be a need to transmit an entire character library but only the characters needed to be displayed which is only a fraction in size compared to a given full character library.

Regarding **claim 8**, Kanungo and Adler disclose the interactive television system of claim 7; moreover, Kanungo discloses storing comprises storing the partial font file as a resource file for the application (The language specific textual information of the application program is included in a resource file [62] which is transmitted as part of the application [64] to the set top box [18], Col. 9 lines 11-15 also exhibited on fig 3).

Regarding **claim 11**, Kanungo discloses an interactive television system having a broadcast center comprising: a source of video/audio streams (Broadcast center [12] as exhibited on fig 1);

a source of applications (Application source [64] column 9 lines 6-20 as exhibited on fig 3);

and a transmitter (12) responsive to a video/audio stream, an application, and a partial font file for the transmission of a transport stream (The broadcast center [12] transmits a stream of digital data to a set top box [18], col. 7 lines 13-17 also exhibited on fig 1).

It is noted that Kanungo fails to explicitly disclose a partial font generator (38) responsive to the textual content of an application which produces a partial font file. However, Adler discloses a partial font generator (38) responsive to the textual content of an application which produces a partial font file (A glyph sub-set is created including only the characters that apply to the electronic content, col. 11 lines 39-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Kanungo by specifically providing the elements

mentioned above, as taught by Adler, for the purpose of saving space at the receiver

side since there would not be a need to transmit an entire character library but only the

characters needed to be displayed which is only a fraction in size compared to a given

full character library.

Regarding **claim 12**, Kanungo and Adler disclose the interactive television

system of claim 11; moreover, Kanungo discloses that the partial font generator

comprises the manual selection of fonts used in an application (Preferably, the

application developer creates the application and the resource file using a text editor

tool, col. 4 lines 9-12 col. 9 lines 61-64 col. 10 lines 24-26).

Regarding **claim 13**, Kanungo and Adler disclose the interactive television

system of claim 11; it is noted that Kanungo fails to explicitly disclose that the partial

font generator (38) comprises an automated addition of a font newly requested by an

application to a partial font file .However, Adler discloses that the partial font generator

(38) comprises an automated addition of a font newly requested by an application to a

partial font file (If a glyph subset used in an application is not available or has not been

created, then such glyph subset is requested, col.13 lines 44-67)

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Kanungo by specifically providing the elements

mentioned above, as taught by Adler, for the purpose of saving space at the receiver

side since there would not be a need to transmit an entire character library but only the

characters needed to be displayed which is only a fraction in size compared to a given

full character library.

Regarding **claim 14**, Kanungo and Adler disclose the interactive television

system of claim 11; moreover, Kanungo discloses an interactive video receiver

responsive to a received transport stream including:

a receiver which separates an application from a video/audio stream (De-

multiplexer [38] separates the video/audio stream and the application, col. 9 lines 21-36

also exhibited on fig 3);

an application processor (Application [64] is executed on the operating

environment [70], col. 9 lines 21-36 also exhibited on fig 3);

a video signal processor (Video multiplexer [48] multiplexes the rendered text

information and the video/audio stream, col. 9 lines 21-36 also exhibited on fig 3);

and a television display (22) coupled to the application processor and the video

signal processor for the display of video and application content (Television [20]

displays the multiplexed information, col. 9 lines 21-36 also exhibited on fig 3).

Regarding **claim 15**, Kanungo and Adler disclose the interactive television

system of claim 14, wherein the application processor is responsive to a partial font file

for the display of textual information of an application on the television display (22) (The

application program includes textual information, including string characters, where the

set top box [18] is configures to receive the application program and render the

characters for display on the television [20]. Col. 7 lines 56-61 also exhibited on fig 3).

4.   **Claims 3, 4, 5, 9 and 10** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kanungo view of Adler further in view of Eyer et al. (Patent No US

5,982,445). Hereinafter referenced as Eyer.

Regarding **claim 3**, Kanungo and Adler disclose the interactive television system

of claim 1; moreover, Kanungo discloses that the video signals, application programs

and partial font files are multiplexed in a transport stream (A broadcast center mixes the

application program, including the resource file with a digital audio/video data stream,

col. 4 lines 8-16 also exhibited on fig. 3);

It is noted that Kanungo and Adler fail to explicitly disclose that the application

programs are objects in an object carousel (90) multiplexed in the transport stream.

However, Eyer discloses that the application programs are objects in an object carousel

(90) multiplexed in the transport stream (The source data for each screen presentation

is broadcasted in a carousel or cyclic manner, col. 11 lines 4-8 also exhibited on fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Kanungo and Adler by specifically providing the

elements mentioned above, as taught by Eyer, for the purpose of repeatedly delivering

data in a continuous cycle which allows data to be pushed from a broadcaster to

multiple receivers by transmitting a data set repeatedly in a standard form.

Regarding **claim 4**, Kanungo and Adler disclose the interactive television system

of claim 3; moreover, Kanungo discloses that the application programs and partial font

files are separate objects of the object carousel (90) (The textual data is included in a

resource file but separate from the application program, col. 4 lines 12-16 and col. 9

lines 49-56 also exhibited on fig. 3).

Regarding **claim 5**, Kanungo and Adler disclose the interactive television system

of claim 3; moreover, Kanungo discloses that the partial font files are embedded in the

application programs (Alternatively, the textual information may be contained in the

application program itself, col. 9 lines 58-60 also exhibited on fig. 3).

Regarding **claim 9**, Kanungo and Adler disclose the interactive television system

of claim 7; it is noted that Kanungo and Adler fail to explicitly disclose placing the

application and the partial font file in an object carousel (90). However, Eyer discloses

placing the application and the partial font file in an object carousel (90) (The source

data for each screen presentation is broadcasted in a carousel or cyclic manner, col. 11

lines 4-8 also exhibited on fig 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Kanungo and Adler by specifically providing the

elements mentioned above, as taught by Eyer, for the purpose of repeatedly delivering

data in a continuous cycle which allows data to be pushed from a broadcaster to

multiple receivers by transmitting a data set repeatedly in a standard form.

Regarding **claim 10**, Kanungo and Adler disclose the interactive television

system of claim 9; moreover, Kanungo discloses transmitting the application and the

partial font file to an interactive television receiver (The language specific textual

information of the application program is included in a resource file [62] which is

transmitted as part of the application [64] to the set top box [18], Col. 9 lines 11-15 also

exhibited on fig 33).

5.   **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Kanungo view of Adler further in view of Willis. (Patent No US 7,222,336). Hereinafter

referenced as Willis.

Regarding **claim 16**, Kanungo and Adler disclose the interactive television

system of claim 1; it is noted that Kanungo and Adler fail to explicitly disclose that the

source of applications comprises a source of applications compatible with the MHP

standard. However, Willis discloses that the source of applications comprises a source

of applications compatible with the MHP standard (TV broadcasting systems are

adapted to transmit audio and video together with application data to a corresponding

receiving system in accordance with the DVB's MHP standard, col. 3 lines 44-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Kanungo and Adler by specifically providing the

elements mentioned above, as taught by Willis, for the purpose of providing an open

middleware system standard for interactive digital television systems, which enables the

reception and execution of interactive Java based application on a television set.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUNIOR O. MENDOZA whose telephone number is (571)270-3573. The examiner can normally be reached on Monday - Friday 9am - 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571)272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Junior O Mendoza
Examiner
Art Unit 2623

/J. O. M./
March 12, 2008

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2623